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Appln. No. 10/677,966  
Docket No. 14XZ126398/GEM-0171

## REMARKS / ARGUMENTS

Status of Claims

Claims 1-57 are pending in the application. Claims 1-57 stand rejected. Applicant has amended Claims 1-3, 19-25, 39, 40, 56 and 57, cancelled Claims 42 and 55, and added new Claims 58-60, leaving Claims 1-41, 43-54, and 56-60 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §101, 35 U.S.C. §112, second paragraph, and 35 U.S.C. §102(b), have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Priority under 35 U.S.C. § 119

Applicant notes that Item 12 of the Office Action Summary sheet indicates that Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d), with None of Certified copies of the priority documents having being acknowledged as received.

Applicant respectfully submits that a certified copy of the foreign priority document was provided with the original application package, and was so indicated on the Application Transmittal and postcard receipt submitted on October 2, 2003. Applicant submits that the certified copy of the foreign priority document is included within PAIR. Specifically, Applicant finds that within the "Display References" tab of the Secured PAIR screen, the certified copy of the foreign priority document may be found listed as "NPL Documents", having a mail date of 10-02-2003, and a "page count" of 24 pages.

Accordingly, Applicant respectfully submits the certified copy of the foreign priority document has been received at the Office, and may be retrieved and confirmed as described above. Applicant respectfully requests proper acknowledgment of receipt of the foreign priority document.

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### **Specification**

The Examiner has objected to the specification because "Throughout the specification, applicant refers to images taken at 'date t' and 'date t-1'. These terms should be changed to 'time t' and 'time t-1' because presumably both images are taken at different times on the same date. Appropriate correction is required."

Applicant respectfully submits that two images, one taken at a "time t" and a "time t-1" are not necessarily limited to having to be taken at different times on the same date, and that a "time t" and "time t-1" can include information that differentiates not only the time of the corresponding image, but the date upon which the corresponding image was taken. However, in an effort to further the application to allowance, Applicant has amended the specification as suggested by the Examiner.

Accordingly, Applicant respectfully submits that the objections to the specification have been addressed, and requests reconsideration and withdraw of this objection.

### **Rejections Under 35 U.S.C. §112, Second Paragraph**

Claims 1-57 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

Applicant has amended Claim 1 to recite "...*filtering of noise in radiography*...". No new matter has been introduced, as antecedent support may be found in the specification as originally filed, such as at paragraph [0010], for example.

Applicant has Amended Claims 1, 2, and 3 to provide proper antecedence for the terms "coefficients", "intensity", "difference", "filtered value", "Up", "difference  $\epsilon$ ", "value", and "function".

Applicant has amended Claims 19-25 to indicate "time t" and "time t-1".

Applicant has amended Claims 39 and 40 to correct a typographical error that resulted in Claims 38 and 39 being identical.

Applicant has cancelled Claim 42.

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Applicant has amended Claim 57 to change "foor" to "for".

In view of the foregoing, Applicant respectfully submits that the claimed subject matter is described in such a manner that reasonably conveys to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection, which Applicant considers to be traversed.

**Rejections Under 35 U.S.C. §101**

Claims 55-57 stand rejected under 35 U.S.C. §101, because the claimed invention is allegedly directed to non-statutory subject matter. The Examiner asserts Claim 55 recites a computer program per se, not embodied on any tangible computer readable medium, and is therefore non-statutory. The Examiner further states "In claim 56, the term 'computer useable medium' should be 'computer readable medium'. Also in claims 56 and 57 'computer readable program code means embodied in the medium' should be 'computer readable program code means stored in the medium'.

Applicant had cancelled Claim 55. Applicant respectfully submits that a "computer useable medium" will be appreciated by one skilled in the art to be a "computer readable medium", as a manner of use of a "medium" by a computer is often "reading" of the "medium". Applicant also respectfully submits that "a computer readable program code means embodied in the medium" would similarly be appreciated by one skilled in the art to describe "a computer readable program code means stored in the medium", as the means of "embodying" a computer readable program code is a often a medium to "store" the computer readable program code means. However, in an effort to further the present application to allowance, Applicant has amended Claims 56 and 57 as suggested by the Examiner.

Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw these rejections, which Applicant considers to be overcome.

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**Rejections under 35 U.S.C. §102**

Claims 1-25 and 43-57 stand rejected under 35 U.S.C. §102(b) as being anticipated by admitted prior art on pages 1 and 2 of the application.

Claims 1-26, 31-34, 40-52 and 55-57 stand rejected under 25 U.S.C. 102(a) and (e) based on (U.S. Patent No. 6,728,415 hereinafter Shaw).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, *in a single prior art reference.*” *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). Moreover, “[t]he identical invention must be shown in as complete detail as is contained in the \*\*\* claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements “arranged as in the claim.” *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

**Regarding Independent Claims 1, 56, and 57 with respect to 35 U.S.C. §102(b)**

Applicant has amended Claims 1, 56, and 57 to now recite, inter alia,  
“...wherein *D* is greater than 1.”

No new matter has been added by these amendments as antecedent support may be found in the specification as originally filed, such as at Paragraph [0039] and Figure 3, for example.

Dependent claims inherit all of the limitations of the respective parent claim.

The Examiner alleges “For claims 1 and 55-57, each claim recites a convolution core with a dimension *D*. This is broad enough to include a dimension *D* of 1. In this case, *L* is zero. Also, *k* and *l* are zero, the coefficients *U<sub>p</sub>* and *U<sub>p</sub>*’ are one, and *N* is two.

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The filtered valued  $F(x,y)$  then becomes the average of the two images  $I(x,y)$  and  $I'(x,y)$  as discussed on page 2 of the Application.” [paper 20061011, p.4]

Applicant respectfully submits that the admitted prior art is absent disclosure of the now claimed “...*wherein  $D$  is greater than 1.*” Accordingly, Applicant submits that the admitted prior art does not disclose each and every element of the claimed invention arranged as in the claim, and absent anticipatory disclosure in the admitted prior art of each and every element of the claimed invention arranged as in the claim, the admitted prior art cannot be anticipatory.

In view of the amendment and foregoing remarks, Applicant submits that the admitted prior art does not disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that the Examiner’s rejection under 35 U.S.C. §102(b) has been traversed, and requests that the Examiner reconsider and withdraw of this rejection.

Regarding Independent Claims 1, 56, and 57 with respect to Shaw

In alleging Anticipation, the Examiner remarks “For claims 1, 8-25, 40-41, 48-50, and 55-57, when gamma is zero, there is only one image present in the convolution equation of claim 1...This reads on the convolution shown in Shaw.” [paper 20061011, p. 5].

Applicant respectfully submits that the above remarks appear to be merely a broad, conclusory restatement of the claim language, without specific recitation of where each and every element of the claimed invention may be found within Shaw.

Specifically, Applicant submits that Shaw is absent any disclosure of the claimed “...for each pixel with coordinates  $(x,y)$  of the first image, a weighting is performed on the coefficients  $U(k,l)$  of the first convolution core as a function of the coefficient  $G$  which is a function of the difference computed between  $I(x,y)$  and  $I'(x+k, y+l)$ , where  $I'(x,y)$  is an intensity of the pixel with coordinates  $(x,y)$  of a second image, a third convolution core with coefficients  $U_p'(k,l)$  being thus obtained; and a filtered value of  $I(x,y)$  is computed by the formula:

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$$F(x, y) = \left( \sum_{k=-L}^L \sum_{l=-L}^L (\gamma * Up(k, l) \cdot I(x+k, y+l) + (1-\gamma) * Up'(k, l) \cdot I'(x+k, y+l)) \right) / N \dots (1)$$

$$L = (D-1)/2 \dots (2)$$

$$\gamma \in [0,1] \dots (3)$$

$$N = \sum_{k=-L}^L \sum_{l=-L}^L (\gamma * Up(k, l) + (1-\gamma) * Up'(k, l)) \dots (4)$$

Accordingly, Applicant submits that Shaw does not disclose each and every claim element arranged as in the claim, and absent anticipatory disclosure in Shaw of each and every element of the claimed invention arranged as in the claim, Shaw cannot be anticipatory. Accordingly, Applicant respectfully submits that the Examiner's rejection under 35 U.S.C. §102(a) and 35 U.S.C. §102(e) have been traversed, and requests that the Examiner reconsider and withdraw these rejections.

In light of the forgoing, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §112, second paragraph, 35 U.S.C §101, and 35 U.S.C. §102(b), have been traversed, and respectfully requests that the Examiner reconsider and withdraw these rejections.

#### **Regarding New Claims 58-60**

Applicant has added new Claims 58, 59, and 60, which depend, respectively, from Claims 1, 56, and 57, to now claim disclosed but previously unclaimed subject matter. No new matter has been added as antecedent support may be found in the application as originally filed, such as at paragraph [0046] and in the originally filed claims, for example.

In view of the amendment and remarks set forth above regarding the allowability of Claims 1, 56, and 57, Applicant submits that new Claims 58-60 are directed to allowable subject matter and respectfully requests entry and notice of allowance thereof.

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The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 50-2513.

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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